

Section 1 - General Awareness

1) Name the scientist who discovered electrons which are small negatively charged particles?

- A) Ernest Rutherford
 - B) J.J. Thomson
 - C) Niels Bohr
 - D) Henry Moseley
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2) Pretoria is the administrative capital, Cape Town is the legislative capital and Bloemfontein is the judicial capital of which of the following countries?

- A) South Africa
 - B) Uganda
 - C) Zimbabwe
 - D) Lesotho
-

3) The main reason behind the Plan Holiday action plan was the Indo-Pakistan war and failure of one of the Five Year Plans. The duration of the plan holiday was from

- A) 1978-81
 - B) 1988-90
 - C) 1996-99
 - D) 1966-69
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4) Which of the following is the capital city of South Sudan which became the 193rd member of United Nations in 2011?

- A) Khartoum
 - B) Juba
 - C) Caracas
 - D) Dushanbe
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5) In November 2017, which of the following Indian telescopes measured X-ray polarisation of Crab pulsar star in Taurus constellation?

- A) Resourcesat-1
- B) Cartosat
- C) Himalayan Chandra
- D) AstroSat

6) Which of the following teams won the Women's Hockey Asia Cup after 13 years, in November 2017?

- A) Australia
 - B) India
 - C) Malaysia
 - D) China
-

7) Which of the following became the first state in India to establish cashless system for distribution of food grains?

- A) Gujarat
 - B) Rajasthan
 - C) Karnataka
 - D) Maharashtra
-

8) Name the scientist who is known for the discovery of the chemical element 'Radium'?

- A) Marie Curie
 - B) Henry Cavendish
 - C) Maria Mayer
 - D) Smithson Tennant
-

9) Which of the following awards is presented by UNESCO and the Govt. of India for the popularisation and propagation of science and, it was initially started through donation from Shri Biju Patnaik, ex-Chief Minister of Odisha?

- A) Pulitzer Award
 - B) Shanti Swarup Bhatnagar Award
 - C) Kalinga Award
 - D) Konark Award
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10) Which of the following is the capital city of Croatia?

- A) Zagreb
- B) Ouagadougou
- C) Praia
- D) Bujumbura

11) Which of the following is an INCORRECT option pertaining to the books written by Dr. A. P. J. Abdul Kalam?

- A) Inspiring Thoughts
 - B) Freedom's Battle
 - C) The Luminous Sparks
 - D) Indomitable Spirit
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12) Who among the following was honoured with the 'Transformational Contribution to Sports' award in the inaugural edition of Indian Sports Honours 2017 held in Mumbai?

- A) Deepika Singh
 - B) Abhinav Bindra
 - C) Sania Mirza
 - D) Arjun Atwal
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13) Which of the following is an INCORRECT option pertaining to the Prime Ministers of India who has presented the budget in the parliament of India?

- A) Manmohan Singh
 - B) Rajiv Gandhi
 - C) Lal Bahadur Shastri
 - D) Indira Gandhi
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14) As per the Union budget (2018-19) by Finance Minister Mr. Arun Jaitley, which of the following acts changed the lender-debtor relationship?

- A) Insolvency and Bankruptcy Code (IBC)
 - B) Goods and Services Act (GST)
 - C) Direct Tax Code Bill
 - D) Benami Transaction Act 2016
-

15) G.W.A. Dummer, Robert Noyce and Jack S. Kilby are associated with which of the following inventions?

- A) Electric motor
- B) Integrated Circuits
- C) Jet Engine
- D) Laser

Section 2 - Analytical Ability

16) Arjun decided to set the rate of interest 10% per annum for first 3 years and for the next 4 years 12% per annum and for the period beyond 7 years, 14% percent per annum. If Ms.Sonia lent out Rs.5000 for 11 years, the total interest earned by him was

- A) Rs.6400
 - B) Rs.6700
 - C) Rs.6100
 - D) Rs.6000
-

17) What is the next number of the given series? 11, 33, 99, 297, ?

- A) 983
 - B) 981
 - C) 891
 - D) 893
-

18) Two girls start together to run a certain distance, one at 8 km/hr and another at 10 km/hr. The one who is moving at 8 km/hr reaches 1 hour after the one who is moving at a speed of 10 km/hr. What is the distance covered by each of them?

- A) 40 km
 - B) 20 km
 - C) 10 km
 - D) 60 km
-

19) A truck consumes 20 litres of petrol while covering a distance of 100 km. To cover a distance of 500 kms, how much petrol is needed?

- A) 100 litres
 - B) 400 litres
 - C) 200 litres
 - D) 300 litres
-

20) E is the mother of Q and wife of F. F is B's son. Q is B's

- A) Uncle
- B) Can't be determined
- C) Grand daughter
- D) Grand Son

21) Meenal is facing towards North & her shadow falls on her left . The possible time at that moment must be

- A) 11.30 AM
 - B) 8.00 AM
 - C) 7.30 PM
 - D) 8.00 PM
-

22) Sujay rides a motorcycle 20 km towards South from his initial point. Then, he moves 12 km back towards North. Then he moves 6 km towards West and reaches his destination. What is the minimum distance from the initial point to the destination and his final direction with respect to the initial point?

- A) 20 km, South - East
 - B) 20 km, North - East
 - C) 10 km, North - West
 - D) 10 km, South - West
-

23) If the selling price of an article is Rs.900 and the cost price is Rs.850, then what is the gain/loss %?

- A) 0.0917
 - B) 0.0588
 - C) 0.0641
 - D) 0.0744
-

24) A train crosses a pole completely in 40 seconds and a platform in 50 seconds. If the length of the platform is 125 meters then, the sum of the length of the train and platform is?

- A) 425 m
 - B) 625 m
 - C) 525 m
 - D) 725 m
-

25) If YAK is coded as 4, DOGS is coded as 5, then LIGHT will be coded as

- A) 4
- B) 5
- C) 7
- D) 6

26) What is the missing number in the given series?
128000, 64000, ?, 16000, 8000

- A) 20000
 - B) 10000
 - C) 32000
 - D) 4000
-

27) Only $\frac{3}{5}$ th of the students in Nilesh's coaching class brings tiffin every day. What is the percentage of the students who bring tiffin?

- A) 0.76
 - B) 0.6
 - C) 0.54
 - D) 0.78
-

28) A lady sitting in a train passes through 62 banners in a minute. If each of the banners are known to be 90 m apart, then what is the approximate speed of the train?

- A) 329 km/hr
 - B) 344 km/hr
 - C) 444 km/hr
 - D) 424 km/hr
-

29) In each of the following questions, there is a certain relationship between two given words on one side of :: and one word is given on another side of :: while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair bear. Choose the correct alternative. Full : Empty :: Rough : ?

- A) Coarse
 - B) Smooth
 - C) Dwarf
 - D) Tiny
-

30) Anil borrows Rs.10000 at simple interest. After 2 years, he again borrows Rs.6000 at simple interest and finally pays Rs.4680 as interest after 6 years from the time he made the 1st loan. The rate of interest is the same in both the cases. What is the rate of interest?

- A) 0.0632
- B) 0.1032
- C) 0.0557
- D) 0.0432

Section 3 – Draftsman

31) Which type of flooring is most suitable for dance floors or auditoriums?

- A) Asphalt Flooring
 - B) Glass Flooring
 - C) Wood Flooring
 - D) Mud Flooring
-

32) If center to center length of long wall L is 5 m, and center to center length of short wall S is 3 m and wall thickness is 0.30 m, then the length of short wall will be

- A) 2.4 m
 - B) 3.6 m
 - C) 3.3 m
 - D) 2.7 m
-

33) In long wall and short wall method of a building estimation, if 'l' is the center to center length of wall 'd' is the thickness(breadth) of the wall, then length of long wall is given by

- A) $l+2d$
 - B) $l-2d$
 - C) $l+d$
 - D) $l-d$
-

34) To draw circles, arcs and circular curves of diameter less than 50 mm , generally which instrument among the following is used?

- A) French Curve
 - B) Protractor
 - C) Spring Bow Compass
 - D) Drafter
-

35) Canals taken off large rivers and which receive water when the water level is high enough and especially when it is flooded is known as

- A) Feeder Canals
- B) Ridge Canals
- C) Perennial Canals
- D) Inundation Canals

36) In an orthographic projection, if a point is in the third quadrant, then it is actually located (Given: VP= Vertical Plane, HP= Horizontal Plane)

- A) in front of the VP and above HP
 - B) in front of the VP and below HP
 - C) behind the VP and above HP
 - D) behind the VP and below HP
-

37) In hydropower plants, a cylindrical tank which is open at the top (open to atmosphere) to control the pressure in penstocks is known as

- A) Forebay
 - B) Draft Tube
 - C) Intake
 - D) Surge Chamber
-

38) A thin ruled line provided with free hand zigzags at suitable intervals and is used to show the break for a considerable length of the object is known as

- A) Construction Line
 - B) Break Even Line
 - C) Long Break Line
 - D) Short Break Line
-

39) As per BIS recommendations, the widths (thickness) of extra wide, wide and narrow lines are in the ratio

- A) 4:2:1
 - B) 8:6:1
 - C) 6:4:1
 - D) 3:2:1
-

40) In a certain water distribution system, the central main line is interconnected with sub mains and branch lines, eliminating the dead ends. Also, the water flows continuously in this system without stagnating. Identify this system among the following.

- A) Tree Type System
- B) Radial System
- C) Ring System
- D) Grid Iron System

41) When dry sand absorbs water from atmosphere or when water is mixed artificially, there is an increase in volume of sand due to moisture. This increase in volume is known as

- A) Bulking of Sand
 - B) Softening of Sand
 - C) Stiffening of Sand
 - D) Extensibility of Sand
-

42) As per the general requirements, the horizontal distance of a building site from High voltage lines upto and including 11,000 volts should be atleast

- A) 0.5 m
 - B) 0.2 m
 - C) 1.2 m
 - D) 0.9 m
-

43) As per IS code, in the designation for the grade of concrete M 35, M refers to the mix and the number to the specified characteristic compressive strength(N/mm²) of 15 cm cube at

- A) 17 days
 - B) 10 days
 - C) 30 days
 - D) 28 days
-

44) As per the National Building Code for a Habitable room, the minimum height from the surface of the floor to the ceiling or bottom of slab should NOT be less than

- A) 2.75 m
 - B) 1.5 m
 - C) 1.75 m
 - D) 0.75 m
-

45) As per ISO 128-20:1996, a group of two or more different line elements which form a non-continuous line is termed as

- A) Rectangle
- B) Circle
- C) Square
- D) Line segment

46) As per National Building Code of India, the occupant load per 100 sq m of Plinth or Covered Area for residential building is

- A) 5.0
 - B) 8.0
 - C) 11.0
 - D) 3.0
-

47) Windows projected from the wall of a building, which is provided to increase the area of opening, which enables more ventilation and light from outside is generally known as

- A) Clerestory Window
 - B) Lantern Window
 - C) Bay Window
 - D) Dormer Window
-

48) In concrete technology, Blaine's Air Permeability Apparatus is used for measuring the

- A) Fineness of Cement
 - B) Setting of Cement
 - C) Soundness of Cement
 - D) Durability of Cement
-

49) Which of the following is a simplest form of truss which consists of upper and lower chords and a central vertical post?

- A) Both Fink truss and Queen post truss
 - B) King post truss
 - C) Queen post truss
 - D) Fink truss
-

50) Drawing of an assembly in pictorial representation in which all the components are drawn to the same scale and correctly oriented relative to each other, but are separated from each other in their correct sequence along common axes is known as

- A) Exploded View
- B) Pictorial View
- C) Principal View
- D) True View

51) In the fire burnt bricks, generally the red colour of the brick is obtained due to the presence of

- A) Iron Oxide
 - B) Sulphur
 - C) Alumina
 - D) Magnesia
-

52) An imaginary line on the ground joining the points of equal elevation is termed as

- A) Datum
 - B) Isohyte
 - C) Benchmark
 - D) Contour
-

53) A series of straight, parallel and equally spaced contours usually represents a/an

- A) Plane Surface
 - B) Vertical Slope
 - C) Steep Slope
 - D) Undulated Surface
-

54) In the cross-section of the macro-structure of an exogenous tree, the outermost one ring between the bark and sap wood which is not yet converted into wood is known as

- A) Cambium
 - B) Pith
 - C) Annual ring
 - D) Medulla
-

55) As per BIS: 9609, for Type A lettering, the height of the Lower case letter is generally taken as

- A) 0.5 times the height of Capital letter
- B) 0.1 times the height of Capital letter
- C) 0.7 times the height of Capital letter
- D) 0.2 times the height of Capital letter

56) A Junction in a structure formed when an internal wall meets an external continuous wall at an angle other than 90° is known as

- A) Oblique Junction
 - B) Cross-Junction
 - C) Acute Junction
 - D) Squint Junction
-

57) The lines which are used to regulate the height and inclination to the letters are known as

- A) Vertical Lines
 - B) Dimension Lines
 - C) Guide Lines
 - D) Offset Lines
-

58) Identify the type of scaffolding in which the standards are supported on series of needles and these needles are taken out through holes in the wall of a structure.

- A) Ladder Scaffolding
 - B) Trestle Scaffolding
 - C) Suspended Scaffolding
 - D) Cantilever Scaffolding
-

59) Which of the following is NOT a general property of Lime, a material used for ordinary construction works?

- A) It sets rapidly by reacting with water
 - B) It is generally white in colour
 - C) It sets slowly by taking CO₂ from air or by reacting with water
 - D) Slaking takes place on adding water
-

60) In a building staircase, the handrail end element for the bullnose step that curves inward like a spiral is known as

- A) Banister
- B) Stringer
- C) Trim
- D) Volute

61) When a landing extends to full width of a staircase, it is known as

- A) Full Spaced Landing
 - B) Double Landing
 - C) Half Spaced Landing
 - D) Quarter Spaced Landing
-

62) An application of a low viscosity asphalt to a granular base in preparation for an initial layer (or surface course layer) of asphalt is known as

- A) Mix Seal Surface
 - B) Tack Coat
 - C) Prime Coat
 - D) Seal Coat
-

63) When numbers of dimensions are measured in the same direction from a common feature, i.e. surface of the part, then this method of indicating all the dimensions from the same feature is known as

- A) Combined Dimensioning
 - B) Progressive Dimensioning
 - C) Parallel Dimensioning
 - D) Chain Dimensioning
-

64) The minimum area for office room/shop or any other space to be used as workspace shall be greater than

- A) 8.0 sq.m
 - B) 4.5 sq.m
 - C) 6.0 sq.m
 - D) 5.0 sq.m
-

65) The structure constructed to carry canal water above the drainage, and the high flood level (HFL) of drainage is above the canal trough is known as

- A) Canal Escape
- B) Canal Inlet
- C) Syphon Aqueduct
- D) Super Passage

66) Which of the following areas is excluded while calculating the Carpet Area for a building estimation?

- A) Area of the drawing room
 - B) Area of the bedroom
 - C) Area of the dining room
 - D) Area of the staircase
-

67) Which of the following CORRECTLY represents a temporary structure that supports the original structure and also used by workmen as a platform to carry on the construction works?

- A) Formwork
 - B) Scaffolding
 - C) Rafters
 - D) Curing
-

68) The portion of the brick cut lengthwise in such a manner that one of its long faces remains uncut is termed as

- A) Bat
 - B) Closer
 - C) Spall
 - D) Quoin
-

69) In which among the following, the face of the pointing is kept inclined, with its upper edge pressed inside the face by 10 mm?

- A) Struck Pointing
 - B) Grooved Pointing
 - C) Tuck Pointing
 - D) Flush Pointing
-

70) A dam consisting of a relatively thin water supporting facing or deck supported by equally spaced triangular walls or counter forts that transmit the water load and deck weight to the foundations is known as

- A) Arch Dam
- B) Buttress Dam
- C) Composite Dam
- D) Cofferdam

71) Identify the CORRECT statement among the following.

- A) A buffer stop is a device to prevent railway vehicles from head on collision when on same track
 - B) Railway turnout is a mechanical device that is used for moving the train at right angles
 - C) Turn Tables are used to turn the locomotive upside down for inspection
 - D) Triangles on railway tracks are used to change the direction of engines
-

72) Which of the following represents a steel bar that is bolted to the ends of two rails to join them together in a track?

- A) Sleeper
 - B) Fish Plate
 - C) Ballast
 - D) Chair
-

73) The resistance offered by the freshly laid concrete to surface finishing is known as its

- A) Creep
 - B) Segregation
 - C) Harshness
 - D) Bleeding
-

74) Waste water from household sinks, showers, and baths where organic matter in it is of negligible amount and normally does not contain human waste is known as

- A) Storm Water
 - B) Foliage
 - C) Sullage
 - D) Garbage
-

75) As per national building code of India, generally the minimum height of doorways should be

- A) 180 cm
- B) 200 cm
- C) 150 cm
- D) 110 cm

76) When a survey is done to prepare a plan map of a region which includes natural as well as man-made features including horizontal and vertical location (elevation) of certain points by linear and angular measurements is generally known as

- A) Construction Survey
 - B) Mine Survey
 - C) Topographical Survey
 - D) Astronomic Survey
-

77) Under normal condition, the volume of a 50 kg cement bag is considered equivalent to

- A) 45.5 litres
 - B) 24.5 litres
 - C) 34.5 litres
 - D) 30.5 litres
-

78) Which of the following is a type of perspective projection, where a face of the object is kept parallel to the PPP (Perspective Picture Plane) and also the edges perpendicular to this face appears to be converging to a VP (Vanishing Point)?

- A) Two point perspective
 - B) Angular perspective
 - C) One point perspective
 - D) Oblique perspective
-

79) The knowledge of various components of an arch like depth, clear span, rise etc. is very important during its design and construction. Here the depth of an arch is the perpendicular distance between the

- A) Intrados and Soffit
 - B) Intrados and Center of Arch
 - C) Intrados and Extrados
 - D) Soffit and Springing Line
-

80) The value of slump for concreting of R.C.C columns, retaining walls and thin vertical sections should generally be in the range of

- A) 75 to 150 mm
- B) 5 to 9 mm
- C) 25 to 50 mm
- D) 10 to 24 mm

81) Which of the following statements is NOT a general principle for the alignment of roads?

- A) The alignment should serve the maximum population by connecting intermediate important towns and group of villages
 - B) Areas liable to landslides and flooding should be avoided while aligning a road
 - C) A right-angled crossing of major rivers results in most economical bridge
 - D) Places of archaeological and historical importance should always be interfered with the alignment of road
-

82) A portion of the structure between the surface of the surrounding ground and surface of the floor immediately above the ground is known as

- A) Plinth
 - B) Lintel
 - C) Foundation
 - D) Sill
-

83) A cement concrete road is 2000 m long, 4m wide and with overall thickness of 25 cm. The box cutting (volume of the cut) in the road crust will be

- A) 2000 cum
 - B) 1500 cum
 - C) 3000 cum
 - D) 1000 cum
-

84) As per general building requirements, for residential low rise building, the minimum width of a staircase shall be

- A) 0.8 m
 - B) 1.8 m
 - C) 0.9 m
 - D) 2.2 m
-

85) Existing contours on landscape drawings, subdivision of plant beds/grass, hidden outlines and hidden edges on a drawing sheet are usually represented by

- A) Dashed wide line
- B) Dashed narrow line
- C) Long dashed dotted extra-wide line
- D) Dashed Extra wide line

86) The size (height) of the lettering for items like 'Name of the company', as per recommendations of BIS: 9609 can be taken as

- A) 50 mm
 - B) 2.5 mm
 - C) 5 mm
 - D) 20 mm
-

87) A Continuous narrow line for a drawing which establishes the connection between the features of a graphical representation and additional alphanumeric and/or written instructions in an unambiguous manner is termed as

- A) Dimensional Line
 - B) Graphical Line
 - C) Leader Line
 - D) Reference Line
-

88) In the system of plumbing, relief vent pipes are generally provided in

- A) Partially Ventilated Single Stack System
 - B) Single Stack System
 - C) One Pipe System
 - D) Two Pipe System
-

89) The capacity of exits of staircase of an educational building, indicating the number of persons that could be safely evacuated through a unit exit width of 50 cm is

- A) 35 persons
 - B) 12 persons
 - C) 40 persons
 - D) 25 persons
-

90) For the loft provided in residential building and shops, minimum height between loft and ceiling shall be

- A) 1.5 m
- B) 1.0 m
- C) 1.75 m
- D) 0.5 m

91) The unit of measurement in MKS system for providing skirting in internal walls is generally in

- A) Quintals
 - B) Number of Pieces
 - C) Meters
 - D) Cubic Meters
-

92) The horizontal angle between the true meridian and the magnetic meridian shown by the needle at the time of observation is known as

- A) Magnetic Declination
 - B) Reduced Bearing
 - C) Latitude
 - D) Whole Circle Bearing
-

93) In the typical cross section of the Macadam's road construction, the cross slope is generally taken as

- A) 1 in 26
 - B) 1 in 36
 - C) 1 in 10
 - D) 1 in 5
-

94) The longitudinal movement of the rails in the track in the direction of motion of locomotives is known as

- A) Deflection
 - B) Creep
 - C) Bending
 - D) Coning
-

95) Which of the following is a type of road, based on the materials used for its construction?

- A) Medium Cost Road
- B) Light Traffic Road
- C) Flexible Road
- D) Cement Concrete Road

96) The minimum formation of width of a National and State highway in plain area as per recommendation of IRC is

- A) 12.0 m
 - B) 8.0 m
 - C) 7.5 m
 - D) 10.0 m
-

97) As per general building requirements, the minimum width of a habitable room in a house built on a plot having area more than 50 sq m should be

- A) 2.4 m
 - B) 2.0 m
 - C) 3.4 m
 - D) 3.2 m
-

98) Spring steel clips that attach to the underside of the rail baseplate and bear against the sides of the sleepers to prevent longitudinal movement of the rail, either from changes in temperature or through vibration are known as

- A) Dog Spikes
 - B) Rail anchors
 - C) Pandrol clip
 - D) Screw Spikes
-

99) In Indian Railways, a place where goods trains are received, sorted, reformed and dispatched is known as

- A) Junction Station
 - B) Car Shed
 - C) Marshalling Yard
 - D) Terminal Station
-

100) A concrete is said to be workable, if it can be handled without segregation and this workability of concrete is generally measured by which method among the following?

- A) Vicat Apparatus
- B) Vee-Bee Consistometer
- C) Le-Chatelier's Apparatus
- D) Water Bath method

Answer Keys

1	B	26	C	51	A	76	C
2	A	27	B	52	D	77	C
3	D	28	A	53	A	78	C
4	B	29	B	54	A	79	C
5	D	30	C	55	C	80	A
6	B	31	C	56	D	81	D
7	A	32	D	57	C	82	A
8	A	33	C	58	D	83	B
9	C	34	C	59	A	84	C
10	A	35	D	60	D	85	B
11	B	36	D	61	C	86	D
12	B	37	D	62	B	87	C
13	C	38	C	63	C	88	A
14	A	39	A	64	C	89	D
15	B	40	D	65	C	90	C
16	B	41	A	66	D	91	C
17	C	42	C	67	B	92	A
18	A	43	D	68	B	93	B
19	A	44	A	69	A	94	B
20	B	45	D	70	B	95	D
21	B	46	B	71	D	96	A
22	D	47	C	72	B	97	A
23	B	48	A	73	C	98	B
24	B	49	B	74	C	99	C
25	D	50	A	75	B	100	B